



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/564,226

05/31/2006

Franz Thocmmes

10191/4495

7534

26646 7590 09/20/2007

KENYON & KENYON LLP
ONE BROADWAY
NEW YORK, NY 10004

EXAMINER

BOECKMANN, JASON J

ART UNIT

PAPER NUMBER

3752

NOTIFICATION DATE

DELIVERY MODE

09/20/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@kenyon.com

Office Action Summary

Application No.

10/564,226

Applicant(s)

THOEMMES, FRANZ

Examiner

Jason J. Boeckmann

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8, 10 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8, 10 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/16/2007 has been entered.

Drawings

The drawings were received on 1/3/2007. These drawings are not acceptable.

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because there are new matter issues with the replacement drawing sheet. There is no disclosure in the claims of the specification for the valve sleeve to look exactly as it does in the corrected drawings. For example, along with many other variations in the shape of the valve sleeve, the change in thickness could be more drastic, the transition from the thicker section to the thinner section does not need to be tapered, and the thicker section could be longer than it appears in the figure. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The applicant is required to cancel the new matter in reply to the Office action to avoid

Art Unit: 3752

abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the thickness of the valve sleeve varying across its axial direction and decreasing in a discharge direction of the fuel, of claim 8, and the inflow side region of the valve sleeve being formed in one piece with the supply pipe of claim 8, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

Art Unit: 3752

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 8, 10 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Kobayashi et al (US 2002/0185555).

Kobayashi et al shows a fuel injector (1) comprising; a valve needle (7a) an armature (7c) forming an axially movable valve port together with the valve needle, a restoring spring (9) acting upon the armature, a magnetic coil (11) cooperating with the armature, a valve-seat body (5b), a valve closure member (7b) which forms a sealing seat with the valve seat body and; a valve sleeve (2) surrounding the armature and the valve needle, a wall thickness of the valve sleeve varying across its axial direction (fig 4), wherein the wall the wall thickness of the valve sleeve decreases in a discharge

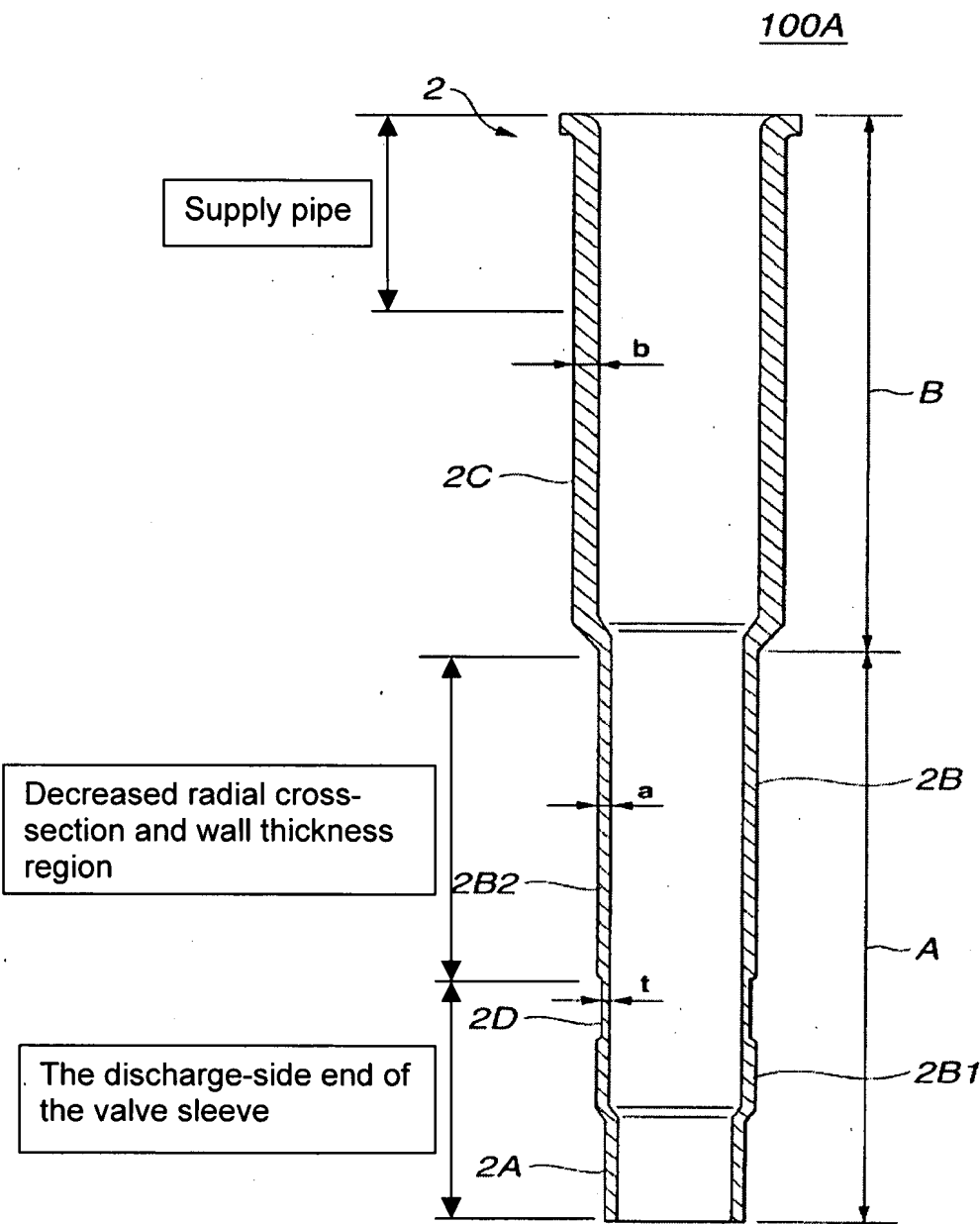
direction of a fuel (figure 4), wherein a radial cross section of the valve sleeve decreases between an inflow-side region and a discharge-side region on a color (figure 4), wherein the radial cross section and the wall thickness of the inflow-side region are constant from the collar to an inflow-side end of the valve sleeve (figure 4); wherein the decreased radial cross section and decreased wall thickness of the discharge-side region are constant from the collar to a discharge-side end of the valve sleeve (see examiners marked up figure of figure 4), and wherein the inflow side region of the valve sleeve is formed in one piece with a supply pipe (see examiners marked up figure 4).

It is noted that the term "in order to limit noises emissions," of line 13, is being considered a functional limitation and is given little or no patentable weight in an apparatus claim.

Additionally, as to the recited process of forming the valve sleeve in one piece with a supply pipe, such is a product by process recitation. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious variant from a product in the prior art, the claim is unpatentable even though the prior product was made by a different process (see MPEP 2113).

Regarding claim 10, the thickness of the valve sleeve is about .3 to .6 mm in an inflow-side region (paragraph 0038).

Regarding claim 14, the thickness of the valve sleeve is about .2 to .5 mm in a discharge-side region (paragraph 0035).



Examines Marked up Figure 4

Response to Arguments

Applicant's arguments filed 7/16/2007 have been fully considered but they are not persuasive.

Regarding the drawing objections, the change in wall thickness is a claimed feature of the applicant's invention and therefore must be shown in the drawings. Even if the drawings are not drawn to scale, all claimed features must be clearly shown. The drawings filed on 1/3/2007 are not acceptable because they contain new matter, see objection above for details.

Regarding the applicant's remarks towards claim 8, It is noted that the term "in order to limit noises emissions," of line 13, is being considered a functional limitation and is given little or no patentable weight in an apparatus claim. Even if it were to be given patentable weight, the change in wall thickness of Kobayashi et al. would limit noise emissions just as the change in wall thickness of the present invention would, considering they are structurally equivalent.

Secondly, since applicant does not define where "a discharge-side end of the valve sleeve," is located, the examiner is considering the discharge-side end of the valve sleeve to be everything including and below the reduced thickness section 2D of the valve sleeve shown in figure 4. Therefore, the valve sleeve has a constant wall thickness and cross-sectional area from the collar to the discharge-side end of the valve sleeve.

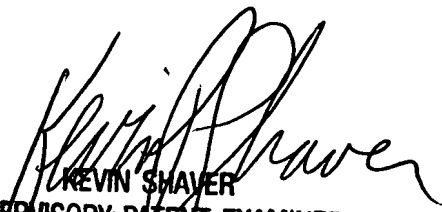
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason J. Boeckmann whose telephone number is (571) 272-2708. The examiner can normally be reached on 7:30 - 5:00 m-f, first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin P. Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JJB JJQ 9/17/07


KEVIN SHAVER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700